

Abstract of the Disclosure

A ring network for transporting data packets between network devices is provided. The ring network includes a number of ring switches. Each ring switch has at least one ring port, at least one local port and at least one table that self learns which network devices are associated with each port of the ring switch based on a selected source identifier from the packets processed by the ring switch. The source and destination identifiers may, for example, be a media access control (MAC) address from an Ethernet packet, an Internet Protocol (IP) address, at least a portion of a hierarchical address, a combination of two or more identifiers at different protocol levels for the data packet, a port number of a universal datagram protocol, or other appropriate identifier. The at least one ring port of each ring switch is coupled to a ring port of another ring switch in the ring network. The ring switch switches data packets between its ring and local ports to direct the data packets to specified network devices associated with the at least one local port of the ring switches in the ring network. The ports of the ring switches are configured such that data packets received at the at least one ring port and the at least one local port that are not destined for a network device associated with the at least one local port of the ring switch are switched to another ring switch on the ring network based on the at least one table without the use of a token or encapsulating the packet.

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